ABSTRACT OF THE DISCLOSURE

A method and apparatus for flexible sharing of bandwidth in switches with input buffering by dividing time into a plurality of frames of time slots, wherein each frame has a specified integer value of time slots. Counters associated with the input-output queues of the switches are loaded with a negotiated integer value once per frame. The inputs sequentially select available outputs to which the inputs send packets in specified future time slots. Priority is given to input-output queues with counters having positive values. The selection of outputs by the inputs is done using a pipeline technique and a schedule is calculated within multiple time slots. The counters for selected queues are then decremented by 1.